

in the event of fire would give rise to danger of flooding. Brittle materials such as cast iron shall not be used in such service. Where nonmetallic materials are used in a piping system, and shell closures are required by this section, a positive closure metallic valve is required (see also § 56.60-25).

(g) The inboard openings of ash and rubbish-chute discharges shall be fitted with efficient covers. If the inboard opening is located below the freeboard deck, the cover shall be watertight, and in addition, an automatic non-return valve shall be fitted in the chute in any easily accessible position above the deepest load line. Means shall be provided for securing both the cover and the valve when the chute is not in use. When ash-ejectors or similar expelling devices located in the boiler-room have the inboard openings below the deepest load line, they shall be fitted with efficient means for preventing the accidental admission of water. The thickness of pipe for ash ejector discharge shall be not less than Schedule 80.

(h) Where deck drains, soil lines, and sanitary drains discharge through the shell in way of cargo tanks on tank vessels, the valves required by this section shall be located outside the cargo tanks. These valves shall meet the material requirements of paragraph (f) of this section. The piping led through such tanks shall be fitted with expansion bends where required, and shall be of steel pipe having a wall thickness of not less than five-eighths inch, except that the use of suitable corrosion-resistant material of lesser thickness will be given special consideration by the Commandant. All pipe joints within the tanks shall be welded. Soil lines and sanitary drains which pass through cargo tanks shall be provided with non-return valves with positive means of closing or other suitable means for preventing the entrance of gases into living quarters.

(i) Except as provided for in § 58.20-20(c) of this chapter, sea valves must not be held open with locks. Where it is necessary to hold a discharge or intake closed with a lock, either a locking valve may be located inboard of the sea valve, or the design must be such that there is sufficient freedom of motion to

fully close the locked sea valve after an event, such as fire damage to the seat, causes significant leakage through the valve. Valves which must be opened in an emergency, such as bilge discharges or fire pump suction, must not be locked closed, whether they are sea valves or not.

[CGFR 68-82, 33 FR 18843, Dec. 18, 1968, as amended by CGFR 69-127, 35 FR 9979, June 17, 1970; CGFR 72-59R, 37 FR 6189, Mar. 25, 1972; CGD 81-030, 53 FR 17837, May 18, 1988; CGD 77-140, 54 FR 40610, Oct. 2, 1989]

§ 56.50-96 Keel cooler installations.

(a) Keel cooler installations shall meet the requirements of § 56.50-95(d)(1) and (2), and (e)(3), and (f) except that shutoff or isolation valves will not be required for the inlet and discharge connections if:

(1) The installation is forward of the collision bulkhead; or,

(2) The installation is integral with the ship's hull such that the cooler tubes are welded directly to the hull of the vessel with the hull forming part of the tube and satisfies all of the following:

(i) The cooler structure is fabricated from material of the same thickness and quality as the hull plating to which it is attached except that in the case of half round pipe lesser thickness may be used if specifically approved by the Commandant. In any case the structure, with the exception of the hull proper, need not exceed three-eighths inch in thickness.

(ii) The flexible connections and all openings internal to the vessel, such as expansion tank vents and fills, in the installation are above the deepest load line and all piping components are Schedule 80 or thicker below the deepest load line.

(iii) Full penetration welds are employed in the fabrication of the structure and its attachment to the hull.

(iv) The forward end of the structure must be faired to the hull such that the horizontal length of the fairing is no less than four times the height of the structure, or be in a protected location such as inside a bow thruster trunk.

[CGFR 68-82, 33 FR 18843, Dec. 18, 1968, as amended by CGFR 72-59R, 37 FR 6189, Mar. 25, 1972; CGD 77-140, 54 FR 40611, Oct. 2, 1989]